

## Prepare for the Future of Energy

# Four areas organizations can promote resilience with digital initiatives.

1

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Introduction.

2

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Minimize risk.

3

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Speed incident response.

4

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Transform field service.

5

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Improve sustainability.

6

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Digital technologies are shaping the future of energy.

7

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Conclusion.

In response to disruption, competitive pressures, and customer needs, energy organizations are shifting their strategic focus to digital technologies and intelligent automation to improve agility.

Whether it's a new product, new business model, or new way of servicing customers, digital innovation improves how organizations work by doing the following:

- Automating manual and paper processes.
- Increasing operational transparency.
- Empowering collaboration.
- Acting on asset and field data.

Read on for insights into four areas where energy organizations can innovate to ensure operational resilience.



Energy companies are right to take digital seriously; it is important for their future success, and it is imperative for global economic growth and environmental care.<sup>1</sup>

1. McKinsey, [Digital transformation in energy: Achieving escape velocity](#), 2020



Organizations have a growing need to identify, assess, monitor, and mitigate risk across the enterprise. As compliance and adherence to regulatory mandates becomes more important, leveraging a solution that has built-in controls to manage liabilities and ensure process transparency provides great advantages.

Digital technologies are helping organizations to:

- Streamline communication across internal groups and external parties with collaboration capabilities.
- Unify data on enterprise risk with case management, allowing stakeholders to report on, act on, and improve business decisions.
- Enhance process visibility to ensure control and provide an audit trail to stakeholders.
- Aggregate risk setting, evaluation, and tracking of remediation across risk programs into a single interface.

### Minimize risk: a case study.



Traditional risk management may have served well in the past, but the scope, complexity, and interdependencies of emerging risks are compelling many energy companies to adopt comprehensive and integrated approaches.<sup>2</sup>

With risk concerns top of mind, organizations are turning to digital solutions that can help them identify potential threats on the horizon.

A large energy and chemicals company is using Appian to automate and document the 3rd Party compliance process, making compliance checks part of the daily business routine. Compliance checks can be handled by every employee, at any time, everywhere in the world on mobile devices and on their desktop. Managers now have real-time visibility into compliance risk exposures, enabling better decision-making and providing insights into future challenges.

2. Deloitte, [Enterprise risk management for the energy industry](#)

When incidents and outages occur, speed of response and public safety are paramount. However, critical incident processes are often handled through emails, paperwork, and phone calls, leading to inefficiencies and bottlenecks—and opening the door to risk, safety issues, lawsuits, and insurance costs.

Whether it's a not-at-fault accident, outage, cybersecurity threat, or natural disaster, organizations need a digital application platform to automate processes and notify, route, action, and resolve incidents faster.

Digital technologies are helping organizations to:

- Manage unexpected events and incidents with real-time data.
- Mobilize personnel with ease of escalation, notifications, and collaboration.
- Improve stakeholder visibility on incident and resolution progress.
- Mitigate recurrence by orchestrating field inspections, servicing, and preventative maintenance.
- Ensure compliance with standards and regulatory requirements.



### Speed incident response: a case study.

Energy organizations are leveraging digital technologies to effectively respond to incidents, ensure safety and compliance, and minimize risk, leading to improved business operations and impact.

EDP Renewables North America needed a way to improve how the company handled and responded to wind turbine issues at remote locations around the country. Leveraging Appian, the company was able to automate the prioritization of turbine repairs, factoring in real-time location-specific weather, issue severity, wind patterns, and energy pricing information. This led to **\$100 million worth of turbine issue solutions** captured in the first nine months.<sup>3</sup>

3. Appian Case Study: [EDP Renewables North America](#)

Field service workers are pivotal to the success of business operations. However, energy companies often use paper processes, manual workflows, and disjointed systems that hinder worker productivity, project completion, and stakeholder visibility.

Whether it's conducting site inspections, servicing assets, performing work orders, or resolving customer requests, a digital technology platform is essential to enable mobility, automate processes, provide real-time project collaboration, and deliver auditability and insights to field engineers and management personnel alike.

- Increase productivity by ending paper tracking.
- Enable work anytime, at any location with mobile accessibility.
- Increase compliance and protocol adherence with full audit history.
- Optimize resource allocation, inspections, and scheduling.
- Increase visibility into project status, completion, and performance.



### Transform field service: a case study.

Energy organizations are leveraging intelligent automation to maximize job margins, make more informed decisions on the go, and deliver unprecedented project visibility.

A large North American refiner operates thousands of miles of pipeline. They were using manual, paper-based workflows to manage pipeline maintenance and integrity processes. This limited visibility and slowed maintenance performance. Leveraging Appian, they were able to transform field service with a mobile-enabled field application. Now when contractors find a leaky valve or maintenance issue, they create a case on their mobile device, including details, uploading photos, and routing for approvals with a voice recording. By automating maintenance processes and providing full project intelligence within the application, contractors now have **a five-minute handover instead of a one-hour status meeting** when switching shifts.<sup>4</sup>

4. Petrochemical Update, "[Whitepaper: Achieving Operational Excellence in Maintenance and Turnarounds](#)," 2018

The emphasis on sustainability in society, the economy, and the environment continues to grow. With political pressure rising and regulatory scrutiny increasing, energy organizations are transitioning to more sustainable energy practices and setting goals to reduce CO2 emissions.

Digital technologies are helping organizations to do the following:

- Integrate with external rating systems and regulatory data sources.
- Provide a unified view of Environmental, Social and Governance criteria to determine conformity of products, services, and relationships.
- Quickly change or enhance existing applications by incorporating ESG-related components and assessment criteria to meet constantly evolving requirements.
- Deliver accurate and real-time reporting to gain insights into ESG initiatives and inform decision-making.



## Improve sustainability: a case study.



Energy utilities will need a comprehensive approach to seize the opportunities that these changes will bring about and to elevate the issue of sustainability and set new standards.<sup>5</sup>

Organizations are looking to track and improve the sustainability of their operations, with emphasis on reducing carbon emissions and shifting to a more sustainable future.

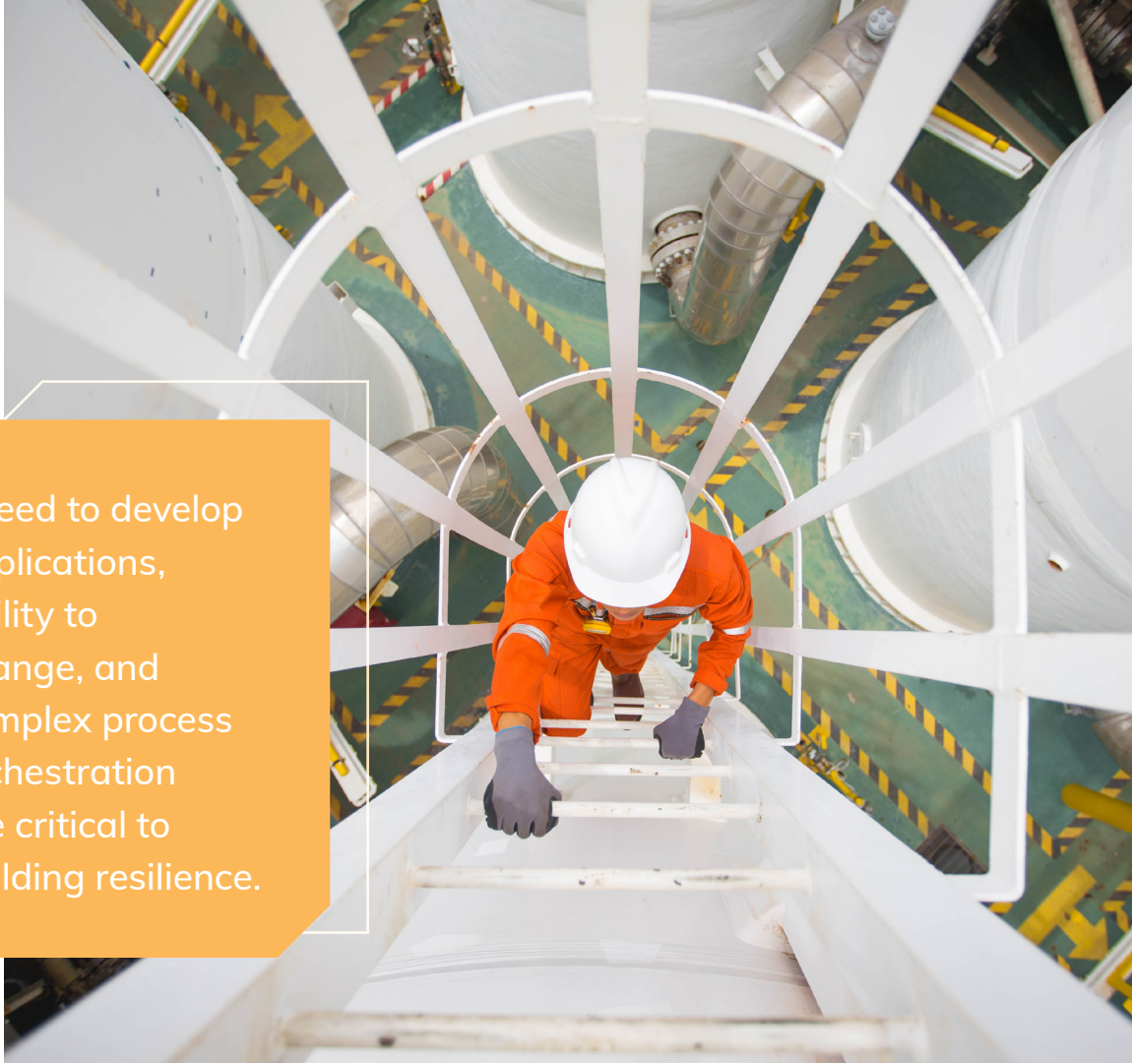
A prominent utilities organization is leveraging Appian to easily orchestrate all requests, decisions, transactions, and business processes across the lifetime of a capital project. Using this application, they are able to manage and track the carbon impact of every capital investment they are making.

5. Folker Trepte, PwC, [Sustainability in the Energy Sector](#)

As your organization embarks on digital initiatives, here is what to look for in a technology partner:

- An enterprise low-code application development approach for speed and agility.
- Integration of legacy and modern systems and databases.
- Native mobile application development.
- Business process automation, collaboration, and dynamic case management.
- AI, RPA, and future advanced capabilities.
- Trusted security, reliability, and governance in a cloud environment.

By changing the way people, technologies, and data are connected through modern and powerful business applications, energy organizations can move faster, transform operations, and deliver long-lasting business impact.



Speed to develop applications, agility to change, and complex process orchestration are critical to building resilience.



Appian helps organizations build apps and workflows rapidly, with a low-code automation platform. Combining people, technologies, and data in a single workflow, Appian can help companies maximize their resources and improve business results. Many of the world's largest organizations use Appian applications to improve customer experience, achieve operational excellence, and simplify global risk management and compliance.

For more information,  
visit [appian.com/energy](https://www.appian.com/energy).





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